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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,499	09/15/2003	Peter W. Merz	003780-046	7404

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EXAMINER

GOFF II, JOHN L

ART UNIT PAPER NUMBER

1733

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

5

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/661,499	MERZ, PETER W.	
	<b>Examiner</b>	<b>Art Unit</b>	
	John L. Goff	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 and 24-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-23 and 27-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                    |                                                                             |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____                                                |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/15/03</u> .                                                             | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group II, claims 9-23 and 27-43, in the reply filed on 1/19/06 is acknowledged. The traversal is on the ground(s) that there is no serious search burden. This is not found persuasive because the restriction requirement properly set forth that the inventions were distinct as evidenced by their different classifications. Thus, a search for one of the inventions would not necessarily include a search for both inventions.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Objections***

2. Claims 31 and 32 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 31, which depends from claim 16, requires one of the hardening processes to be a photochemical reaction. However, claim 16 also requires one of the hardening processes to be a photochemical reaction.

3. Claims 10, 23, 28, and 39 are objected to because of the following informalities: In claim 10, line 2 delete "CIP" and insert therein - - cathodic immersion paint (CIP) - -. In claims 23 and 39, line 3 delete "thermally" and insert therein - - thermal energy - - for clarity. In claim 28, line 2 delete "different kind of" as there is no antecedent basis for the language and removing the language is consistent with claim 29. Appropriate correction is required.

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***Double Patenting***

4. Applicant is advised that should claims 20-23, 34, and 35 be found allowable, claims 36-41 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 22 and 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claims 22 and 38 recite the limitation "the adhesive" in line 4. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. Claims 9, 11, 12, 16-20, 31, 32, 36, 42, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herring, Jr. et al. (U.S. Patent 5,470,416) in view of Morgan (U.S. Patent 4,605,465).

Herring, Jr. et al. discloses a method for bonding and sealing an auto body section of for example a door panel crimp fold comprising preparing a sealant composition including a resin, e.g. epoxy and/or acrylic, and a hardener, e.g. epoxy hardener and/or acrylic hardener, applying the sealant composition to the auto body section at room temperature, and allowing the sealant composition to harden/cure/crosslink at room temperature, i.e. reactive hardening without a special energy supply (Figures 5-12 and Column 2, lines 40-45 and Column 3, lines 36-39). Herring, Jr. et al. are silent as to including in the sealant composition a photoinitiator and a thermal initiator. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the sealant composition taught by Herring, Jr. et al. a photoinitiator and a thermal initiator as was well known in the art as shown for example by Morgan to eliminate sagging, improve wash-off resistance, and provide a fast, complete, and controlled hardening of the sealant composition.

Morgan discloses a method for bonding and sealing an auto body section comprising preparing a sealant composition including a resin (e.g. acrylic), a photoinitiator, and a thermal imitator, applying the sealant composition to the auto body section, applying UV radiation from a lamp to the sealant composition for a short time to partially harden/cure the sealant composition (i.e. a photochemical hardening) thereby improving wash-off resistance and eliminating sagging of the sealant composition, cleaning the auto body section, and applying heat to completely harden/cure the sealant composition (i.e. a thermally activatable hardening)

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(Column 2, line 68 and Column 3, lines 1-55 and Column 8, lines 59-68 and Column 9, lines 1-21 and Column 10, lines 60-68 and Column 11, lines 1-5).

Regarding claims 18 and 19, Herring, Jr. et al. and Morgan do not specifically disclose the time between applying the sealant composition to the auto body section (at which point the room temperature hardening reaction begins) and applying the UV radiation to the sealant composition, it being noted the application steps are sequential. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the UV radiation to partially harden the sealant composition as taught by Herring, Jr. et al. as modified by Morgan immediately after applying the sealant composition to the auto body section such that the application steps are sequential (and thus the hardening processes are performed at a time interval of less than one hour) as only the expected results of quickly producing a sealed auto body section would be achieved.

10. Claims 10, 13-15, 21, 23, 27-30, 33, 35, 37, 39, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herring, Jr. et al. and Morgan as applied to claims 9, 11, 12, 16-20, 31, 32, 36, 42, and 43 above, and further in view of the admitted prior art (Specification pages 1-5).

Herring, Jr. et al. and Morgan as applied above teach all of the limitations in claims 10, 13-15, 21, 23, 27-30, 33, 35, 37, 39, and 41 except for a specific teaching that the auto body section including at least partially hardened sealant composition passes through finishing paint processes including a cleaning bath, a cathodic immersion paint (CIP) bath, and a CIP oven, it being noted Morgan teaches the partial hardening by application of UV radiation occurs before further handling of the auto body section such as passing into a cleaning bath (Column 2, line 68

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and Column 3, lines 1-13 and Column 10, lines 60-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in Herring, Jr. et al. as modified by Morgan well known and conventional finishing paint processes for an auto body section of this type such as passing through a cleaning bath, a CIP bath, and a CIP oven to form a finished auto body section as shown for example by the admitted prior art.

The admitted prior art discloses a method for bonding and sealing an auto body section of for example a door panel crimp fold wherein following application of a sealant composition to the body section the auto body section undergoes finishing paint processes including a first cleaning bath, a CIP bath, and a CIP oven to form a finished auto body section (Page 1, lines 16-20 and Page 2, lines 1-3 and Page 4, lines 3-5). The admitted prior art further teaches applying thermal energy, e.g. inductive heating, to partially harden the sealant composition prior to the finishing processes such that the heat applied during painting is sufficient to complete the thermal hardening (Page 1, lines 16-20 and Page 2, lines 1-3).

Regarding claims 21 and 37, the partial hardening taught by Herring, Jr. et al. and Morgan is performed to an extent that the wash-off resistance of the sealant composition is improved and sagging of the sealant composition is eliminated such that it appears intrinsic to Herring, Jr. et al. as modified by Morgan and the admitted prior art that the sealant composition is sufficiently hardened in touchability and grip strength to undergo further operations such as a cleaning bath or a CIP bath. In any event, it would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine the extent of partial hardening required in Herring, Jr. et al. as modified by Morgan and the admitted prior art as a



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function of the ability to complete the finishing paint process as doing so would have required nothing more than ordinary skill and routine experimentation.

Regarding claims 23, 28, 29, 33, and 39, Herring, Jr. et al. and Morgan do not specifically teach thermally partially hardening the sealant composition prior to the finishing paint processes such that the heat applied during painting completes the thermal hardening. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include in Herring, Jr. et al. as modified by Morgan and the admitted prior art a partial thermal hardening, e.g. by inductive heating, of the sealant composition prior to the finishing paint processes such that the heat applied during painting completes the thermal hardening, i.e. less heat energy is required to complete the thermal hardening, as was known and shown for example by the admitted prior art.

11. Claims 22, 34, 38, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herring, Jr. et al. and Morgan as applied to claims 9, 11, 12, 16-20, 31, 32, 36, 42, and 43 above, and further in view of Thalmeier (EP 254870 and the abstract).

Herring, Jr. et al. and Morgan as applied above teach all of the limitations in claims 22, 34, 38, and 40 except for a specific teaching of applying the sealant composition in two steps a first step for adhering the crimp fold and second application for sealing the crimp fold. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Herring, Jr. et al. as modified by Morgan to apply the sealant composition in two steps as was known in the art as shown for example by Thalmeier to form a bubble free bond and seal.

Thalmeier disclose a method of bonding and sealing an auto body section crimp fold using a sealant composition comprising applying the sealant composition in a first step to bond



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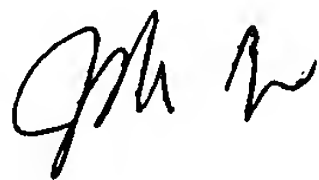
the auto body section followed by at least partial hardening of the sealant composition and applying the sealant composition in a second step to seal the auto body section crimp fold followed by at least partially hardening the sealant composition wherein applying the sealant composition in two steps forms a bubble free bond and seal (See the abstracts).

### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John L. Goff